

# Triangles and quadrilaterals: A review

Name: *Key*

Define the following.

1. Scalene triangle - *no equal sides*
2. Isosceles triangle - *2 or more equal sides*
3. Equilateral triangle - *all = sides*
4. Equiangular triangle - *all = angles*
5. Right triangle - *one right angle*
6. Acute triangle - *all acute*
7. Obtuse triangle - *one obtuse*
8. Quadrilateral - *four sided polygon*
9. Rectangle - *four right angles, 2 pairs of parallel congruent sides*
10. Rhombus - *all sides are equal, two pairs of parallel sides*
11. Square - *all sides congruent, all  $\angle s = 90$*
12. Parallelogram - *2 pairs of parallel, congruent sides*
13. Trapezoid - *1 pair of parallel sides*
14. Isosceles trapezoid - *trapezoid w/ congruent legs*

Find the missing values.

- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

21.

22.

23.

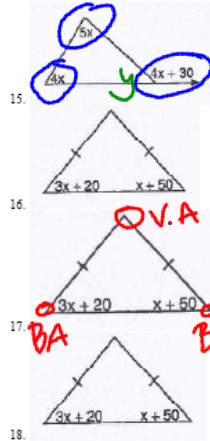
24.

25.

26. A trapezoid has a base of 10 and base of 20. How big is the median?

27. Draw an isosceles triangle. Mark the sides and angles that equal.

Find the missing values.



$$4x + 5x + y = 180$$

$$y + 4x + 30 = 180$$

$$4x + 5x = 4x + 30$$

$$5x = 30$$

$$x = 6$$

$$3x + 20 = x + 50$$

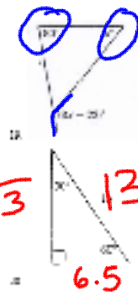
$$-20 \quad -20$$

$$3x = x + 30$$

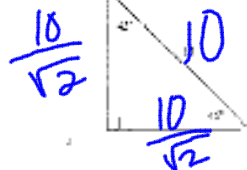
$$-x \quad -x$$

$$2x = 30$$

$$x = 15$$



$$6.5\sqrt{3} \quad 13$$



$$\frac{10}{\sqrt{2}}$$

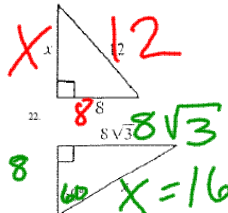
$$80 + x = 3x - 22$$

$$-x \quad -x$$

$$80 = 2x - 22$$

$$102 = 2x$$

$$51 = x$$



$$x \quad 12$$

$$8 \quad 8\sqrt{3} \quad x = 16$$

$$a^2 + b^2 = c^2$$

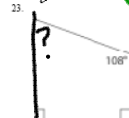
$$8^2 + x^2 = 12^2$$

$$64 + x^2 = 144$$

$$-64 \quad -64$$

$$x^2 = 80$$

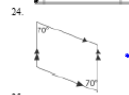
$$x = \sqrt{80}$$



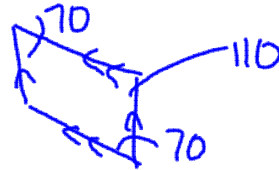
23

$$360 - 180 = 180$$

$$180 - 108 = 72$$



24



25. A trapezoid has a base of 10 and base of 30. How big is the median?

26

$$15$$

27. Draw an isosceles triangle. Mark the sides and angles that equal.

